MICHAEL PECK

GAMING HEARTS AND MINDS

The U.S. Army is turning to massive multiplayer online simulations—i.e., computer gaming—as one way of improving the interpersonal skills of soldiers who will interact with civilians during tours of duty.

The programs in use have the benefit of connecting dozens of soldiers who role-play and hone skills they'll need when questioning villagers in a small town in Iraq, capturing and interrogating insurgents, overseeing checkpoints and generally trying to maintain positive relations with civilians.

Benefits of the training include economy and efficiency. Rather than pay huge amounts to transport soldiers to a central training location, build mock towns and hire contractors to role-play locals, massive multiplayer online simulations—or MMO sim—convey virtually the same information to soldiers who came of age playing computer games.

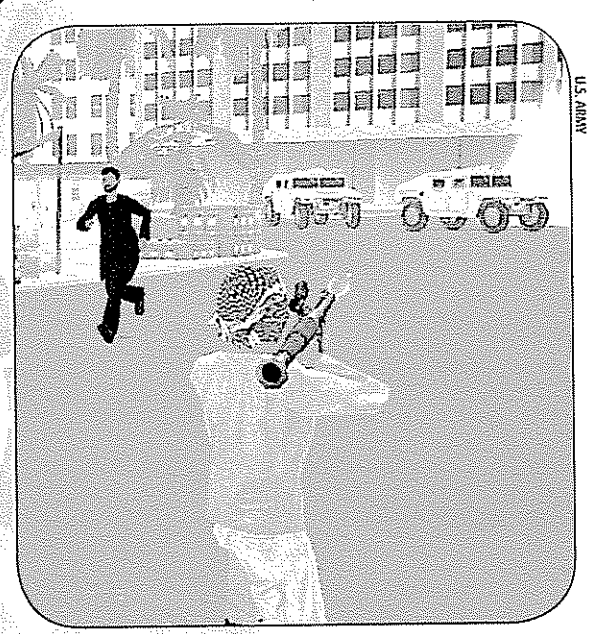
The Army's software has the yawn-inducing title of Asymmetric Warfare—Virtual Training Technology (AW-VTT). But it's a powerful server-based system where multiple users log in from PCs and appear as avatars in the sim. Participants can be anywhere there's enough bandwidth to play and communicate via voice-over Internet.

AW-VTT hasn't been tested on any unit larger than a platoon. But by adding more servers to form a cluster, scenarios have been run with as many as 200 avatars.

AW-VTT does not use artificial intelligence (AI) to control the actions of civilians and insurgents. Humans will control those characters, though if enough people aren't available, artificial ones can be imported from the Army's new OneSAF constructive simulation.

"When soldiers go in-world, they're going to see a lot of civilians shopping in the street," says Rodney Long, a science and technology manager for Research, Development and Engineering Command (Rdecom). "The role-players can play an insurgent, do some sniping or plant an IED. Through them, we can create a variety of scenarios just by changing dialog and actions."

Long says nothing in an MMO-sim is pre-scripted. Avatars can be easily changed to look fairly unique, by selecting a male or female character and changing hair, skin color and clothing. Objects like weapons and vehicles can be easily manipulated.



U.S. ARMY

Simulation software trains soldiers for unexpected and sometimes violent encounters with civilians and insurgents.

The military is touchy about any perception that soldiers are training on video games, especially for potential life-and-death situations. But AW-VTT is more about social interactions than firefights. Based on the Olive game engine from Forterra Systems, AW-VTT has only a basic combat physics model. "We have a little bit of the kinetics in there, where you can do some shooting, and there are some IEDs modeled and things like that," Long says.

AW-VTT has been tested by an Illinois National Guard artillery battalion being retrained for military police duties in Iraq.

It was also tested in three exercises last year. At the Marine Corps Warfighting Laboratory, a squad of Marines tried to establish rapport with shoppers in a Baghdad market, only to confront angry civilians as well as insurgents who chose to launch an attack with an IED and small arms.

At Ft. Dix, N.J., the staff of a military police battalion was tasked with exploring a friendly Arab city to identify critical infrastructure.

The scenario changed to domestic disaster at Ft. Riley, Kan., where a tornado left military police grappling with frenzied crowds, disgruntled citizens-turned-snipers and people crashing the base with stolen vehicles.

Soldiers who have tried AW-VTT like it, especially its after-action review feature, according to Richard Peterson, operations officer at the Ft. Riley sim center. "But they wanted something a little more combat-oriented."

Peterson, who spends much of his time training 11-man military transition teams who, in turn, train Iraqi soldiers, thinks MMOs are an interesting idea. But he wonders whether American troops, who often operate in small groups when fighting insurgents, have more need for sims that train 10 or 11 men rather than platoons and companies.

Long believes the Army needs both kinds. A standard-shooter type sim, where the computer controls the bad guys, is fine for teaching kinetic skills such as how to react during an ambush.

"You may not want to pay several people to be role-players, especially since AI entities are pretty good at shooting back and avoiding fire. But if you want to train soldiers to search a house suspected of being used for making IEDs, you would want the soldiers to be able to question the occupants. This would be an ideal use of a live role-player. AI for verbal communication is not quite there yet."

Discussions are underway with the U.K., Canada and Australia on how AW-VTT might be used to teach common tasks such as patrols, checkpoints and coalition operations. ■